Fish and Waterfowl Consumption Risk Assessment

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Avatar Environmental

Fish and Waterfowl Consumption Risk Assessment

- Fish and waterfowl consumption primary concern/highest risks
- Evaluated risks at locations in MA and CT
- PCBs and TEQ
- Point estimate and probabilistic techniques

Locations and Species

Fish

- Reaches 5 and 6 – brown bullhead, largemouth bass, sunfish, and yellow perch
- Rising Pond - same
- West Cornwall and Bulls Bridge, CT – smallmouth bass
- West Cornwall – trout
- Lake Lillinonah and Lake Zoar – smallmouth bass

Ducks

- Reaches 5 and 6 – wood duck and mallard

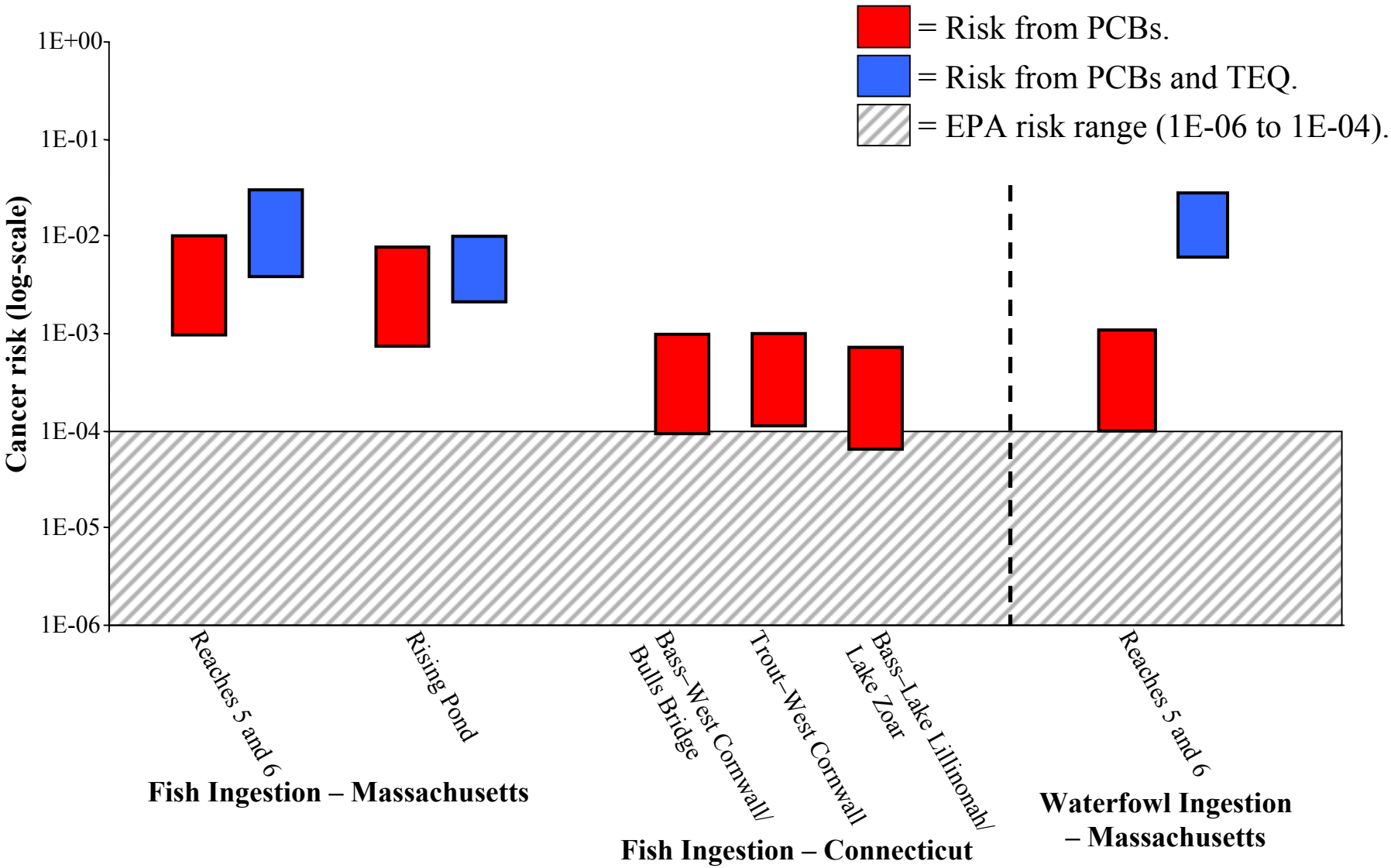
Sample Numbers

Species	Reaches 5 and 6	Rising Pond	West Cornwall/ Bull's Bridge	Lake Lillinonah/Lake Zoar
Fish				
Brown bullhead	43	22	--	--
Brown trout	--	--	60	--
Largemouth bass	30	11	--	--
Smallmouth bass	--	--	40	40
Sunfish	52	13	--	--
Yellow perch	75	14	--	--
Fish Totals	**200**	**60**	**100**	**40**
Waterfowl				
Mallard	5	--	--	--
Wood duck	20	--	--	--
Waterfowl Total	**25**	**--**	**--**	**--**

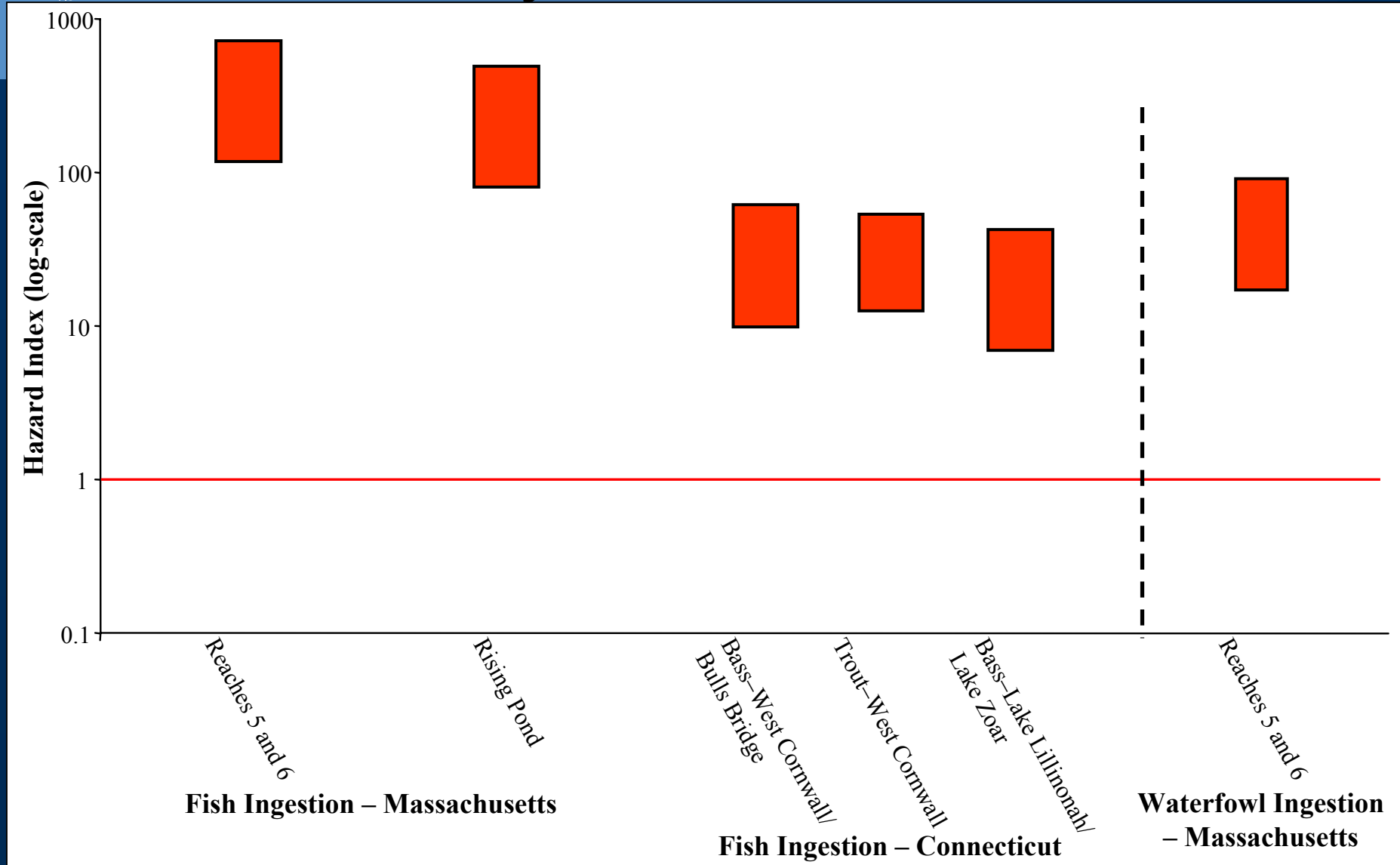
Exposure Parameters

- Concentration in tissue
- Consumption rates
- Frequency
- Duration
- Cooking method

Summary of Cancer Risk Estimates



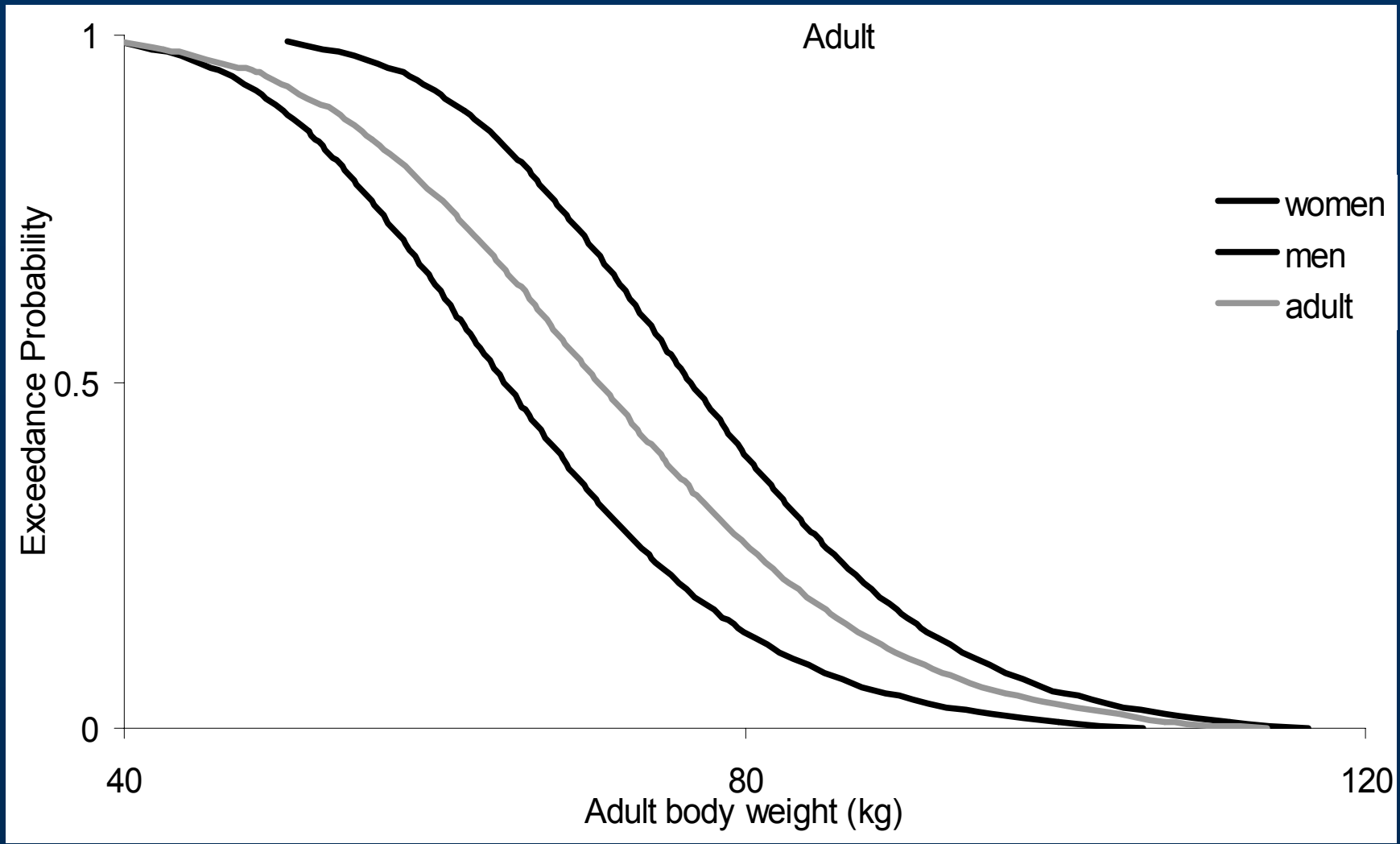
Summary of Hazard Indices



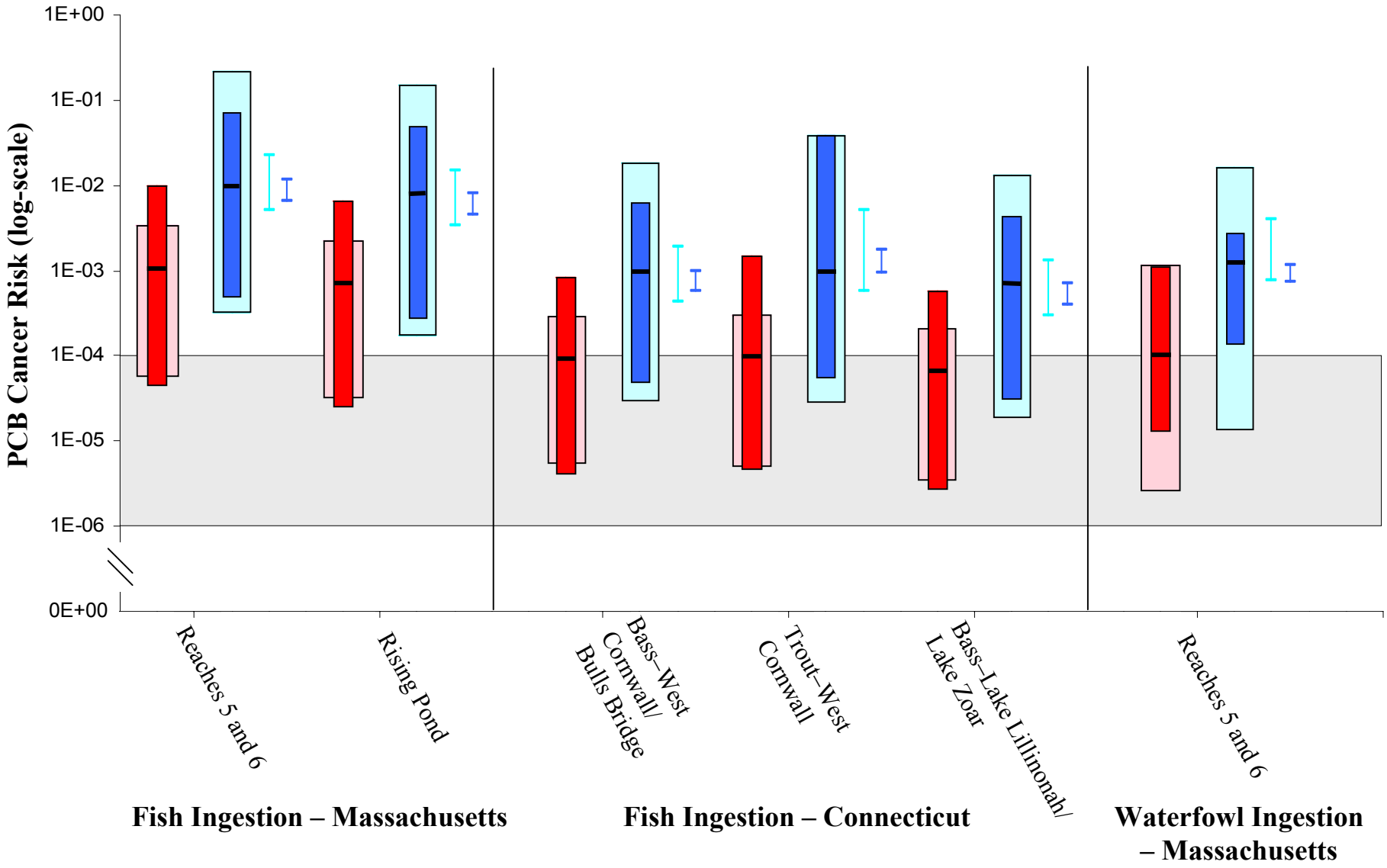
Probabilistic Risk Assessment

- People are different
- Purpose is to characterize variability and uncertainty
- Variability – differences in people in a population
- Uncertainty – incomplete knowledge about the world
- Predicts a range of risk instead of single number

Probabilistic Data Distribution



Summary of PRA Cancer Risk Estimates



Summary of PRA Hazard Indices